

**A NOVEL MICROORGANISM ISOLATED FROM CHINESE ELM (*ULMUS*  
SP.) AND PROCESS FOR PREPARING EXOPOLYSACCHARIDES BY  
EMPLOYING THE MICROORGANISM**

Abstract of the Disclosure

5           The present invention relates to a novel *Enterobacter* sp. isolated from the root  
bark of Chinese elm, which produces immunostimulating exopolysaccharides with  
anticancer activity, a process for preparing the exopolysaccharides by fermenting the  
said microorganism in a culture medium, exopolysaccharides prepared by the process  
and their uses thereof. The exopolysaccharides of the invention have a molecular  
10       weight of 100,000 to 1,000,000 and consist of 40-75% of total sugar, 5-15% of total  
acidic sugar and 10-25% of total protein. The exopolysaccharides exhibits a high  
immunoenhancing activity in immune cell proliferation, direct mitogenicity and mixed  
lymphocyte reaction, and further a high anticancer activity *in vivo* by virtue of  
immunostimulation. Moreover, the production of the exopolysaccharides by  
15       fermentation of a microorganism, makes it possible to provide the exopolysaccharides  
with a uniform quality and mass production without destruction of the plant species.  
The exopolysaccharides of the subject invention have practical uses as an active  
ingredient for anticancer agents, immunoenhancers and foodstuffs.

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